

Serial No. 10/615,801

Attorney Docket No. VX032544

**RECEIVED**  
**CENTRAL FAX CENTER**  
**APR 23 2008****LISTING OF CLAIMS:**

1-3. (Canceled)

4. (Currently amended) A method of manufacturing an emulsion of water and fuel using a series of batch processing steps comprising:

- (a) charging a fuel and an additive into a mixing tank;
- (b) agitating the fuel and the additive charged into the mixing tank;
- (c) charging water into the mixing tank and forming a mixture solution of the fuel, additive and water, while agitating the mixture solution;
- (d) reducing cluster sizes of the fuel and water in the mixture solution by pumping the mixture solution through a processing means and returning the mixture solution into the mixing tank;
- (e) separating the mixture solution in the mixing tank and forming a water rich portion of the mixture solution at a bottom portion of a mixing tank; and
- (f) emulsifying the mixture solution from the bottom portion of the mixing tank at first through the processing means and returning the mixture solution to the mixing tank, thereby forming the emulsion of water and fuel.

5. (Previously presented) The method of manufacturing the emulsion of water and fuel according to claim 4, wherein the water rich portion of the mixture solution is firstly emulsified in step (f) by pumping through the processing means prior to another portion of the mixture solution being emulsified in step (f) by pumping through the processing means.

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6. (Currently amended) The method of manufacturing the emulsion of water and fuel according to claim 4, wherein step (c) and step (d) are performed simultaneously ~~agitating of the fuel, additive and water in the mixing tank is simultaneously performed with the reducing cluster sizes of the fuel and water.~~

7. (Previously presented) A method of manufacturing an emulsion of water and fuel using a series of batch processing steps comprising:

(a) charging a fuel and an additive into a mixing tank containing the emulsion of water and fuel having a first volume;

(b) agitating the emulsion of water and fuel having a first volume together with the fuel and additive and forming a first mixture solution;

(c) charging water into the mixing tank and forming a second mixture solution; and

(d) emulsifying the second mixture solution by pumping the second mixture solution from the mixing tank through a processing means, which reduces clusters of liquid molecules in the mixture solution into smaller clusters, and returning the resulting emulsion of water and fuel having a second volume larger than the first volume to the mixing tank.

8. (Currently amended) A method of manufacturing an emulsion of water and fuel using a series of batch processing steps comprising:

(a) charging a fuel and an additive into a mixing tank;

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(b) agitating the fuel and the additive charged into the mixing tank and forming a mixed solution of the fuel and additive;

(c) charging and mixing water into the mixing tank and forming a first mixture solution of the fuel, additive and water;

(d) reducing clusters of liquid molecules in the first mixture solution into smaller clusters by pumping the ~~firstly mixed~~ first mixture solution through a processing means and returning to the mixing tank, thereby forming a second mixture solution of the fuel, additive and water;

(e) separating the second mixture solution in the mixing tank and forming a water rich portion in the second mixture solution at a bottom portion of a mixing tank; and

(f) emulsifying the separated second mixture solution from the bottom portion of the mixing tank at first through the processing means, thereby forming the emulsion of water and fuel.

9. (Previously presented) The method of manufacturing water emulsion fuel according to claim 8, wherein the water rich portion of the second mixture solution is firstly emulsified in step (f) by pumping through the processing means prior to another portion of the second mixture solution being emulsified in step (f) by pumping through the processing means.

10. (Previously presented) The method of manufacturing water emulsion fuel according to claim 8, wherein step (c) and step (d) are performed in parallel.

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11. (New) The method of manufacturing the emulsion of water and fuel according to claim 4, wherein the processing means includes at least one plate having holes therein, and in steps (d) and (f) the mixture solution passes through the holes in the at least one plate.

12. (New) The method of manufacturing the emulsion of water and fuel according to claim 11, wherein the holes have a diameter of about 0.5 mm to 1 mm.

13. (New) The method of manufacturing the emulsion of water and fuel according to claim 7, wherein the processing means includes at least one plate having holes therein, and in step (d) the mixture solution passes through the holes in the at least one plate.

14. (New) The method of manufacturing the emulsion of water and fuel according to claim 13, wherein the holes have a diameter of about 0.5 mm to 1 mm.

15. (New) The method of manufacturing the emulsion of water and fuel according to claim 8, wherein the processing means includes at least one plate having holes therein, in step (d) the first mixture solution passes through the holes in the at least one plate, and in step (f) the second mixture solution passes through the holes in the at least one plate.

16. (New) The method of manufacturing the emulsion of water and fuel according to claim 15, wherein the holes have a diameter of about 0.5 mm to 1 mm.